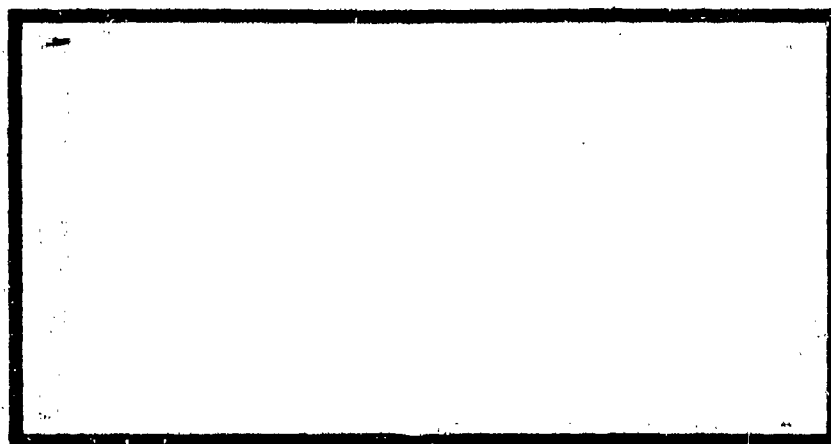


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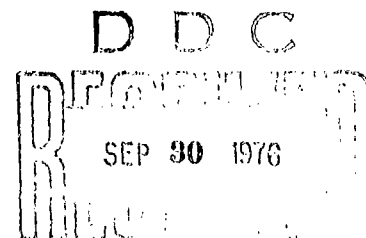
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AN ANALYSIS OF COASTAL ZONE  
MANAGEMENT PROGRAM PROPOSALS TO  
DETERMINE THEIR EFFECT ON THE  
UNITED STATES AIR FORCE

Eugene R. Beachem, Captain, USAF  
John D. Davenport, Captain, USAF

SLSR 33-76A



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20.

With the enactment of the Federal Coastal Zone Management Act of 1972 (P.L. 92-583), the policy of the United States became the conservation, maintenance, and restoration of the coastal zone. Each coastal state is preparing a coastal zone management program to administer this policy. Federal agencies are required by the Act to coordinate with the states during the earliest conceptual planning phases of this program and to comply with the approved programs to the maximum extent practicable. Of the states surveyed, California has the most comprehensive program in draft stage. Other states' programs range from general policies to just initiating the program planning. The programs could have significant impact on the USAF installation located in or near the coastal zone as identified by that state. Areas of particular impact will include land-use planning, air and water pollution, waste disposal systems, energy facility siting, and urban growth. The National defense mission as well as the mission support functions and services of the USAF could be affected if coordination with the responsible state coastal agency is undermined. General guidelines have been developed to aid the installation's civil engineer, or his duly appointed representative, in this coordination process. 70 pages.

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**AN ANALYSIS OF COASTAL ZONE MANAGEMENT  
PROGRAM PROPOSALS TO DETERMINE THEIR EFFECT  
ON THE UNITED STATES AIR FORCE**

**A Thesis**

**Presented to the Faculty of the School of Systems and Logistics  
of the Air Force Institute of Technology**

**Air University**

**In Partial Fulfillment of the Requirements for the  
Degrees of Master of Science in  
Logistics Management and Facilities Management**

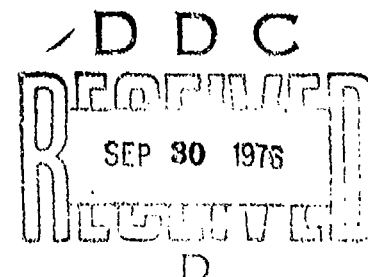
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This thesis, written by

Captain Eugene R. Beachem

and

Captain John D. Davenport

has been accepted by the undersigned on behalf of the  
faculty of the School of Systems and Logistics in partial  
fulfillment of the requirements for the degrees of

MASTER OF SCIENCE IN LOGISTICS MANAGEMENT

and

MASTER OF SCIENCE IN FACILITIES MANAGEMENT

DATE: 16 June 1976

  
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## CHAPTER I

### STATEMENT OF THE PROBLEM

On October 27, 1972, the Ninety-Second Congress enacted Public Law 92-583, Coastal Zone Management Act of 1972 (CZMA) with the purpose:

To establish a national policy and develop a national program for the management, beneficial use, protection and development of the land and water resources of the Nation's coastal zones...[17:1489].

The CZMA encourages the coastal states, including the Great Lakes States, to exercise control over the coastal zone by providing grants to support state coastal zone management programs (CZMP). Federal agencies in the coastal zone are directed by the CZMA to conduct their activities in accordance with approved state coastal zone programs to the maximum extent possible (2:1).

The United States Air Force (USAF) national defense mission and mission support functions could be degraded if coastal states enact unduly restrictive CZMPs. Hence, it is in the best interest of the USAF to communicate, during the conceptual planning stages of the states' CZMP, the USAF's mission related concerns. An analysis of the state CZMP proposals completed at this time was needed to provide the basis for development of a set of guidelines that coastal zone bases can use for input to and analysis of their state's proposed programs.

## DEFINITION OF TERMS

COASTAL ZONE: ...the coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the waters therein and thereunder), strongly influenced by each other and in proximity to the shorelines of the several coastal states, and includes transitional and intertidal areas, salt marshes, wetlands, and beaches. The zone extends, in Great Lakes waters, to the international boundary between the United States and Canada and, in other areas, seaward to the outer limit of the United States territorial sea. The zone extends inland from the shorelines only to the extent necessary to control shorelands, the uses of which have a direct and significant impact on the coastal waters. Excluded from the coastal zone are lands the use of which is by law subject solely to the discretion of or which is held in trust by the Federal Government, its officers or agents [17:1490].

COASTAL WATERS: ...(1) in the Great Lakes area, the waters within the territorial jurisdiction of the United States consisting of the Great Lakes, their connection waters, harbors, roadsteads, and estuary-type areas such as bays, shallows, and marshes and (2) in other areas, those waters, adjacent to the shorelines, which contain a measurable quantity or percentage of sea water, including, but not limited to sounds, bays, lagoons, bayous, ponds, and estuaries [17:1490].

COASTAL STATE: ...a state of the United States in, or bordering on, the Atlantic, Pacific, or Arctic Ocean, the Gulf of Mexico, Long Island Sound, or one or more of the Great Lakes....the term also includes Puerto Rico, the Virgin Islands, Guam, and American Samoa [17:1490].

ESTUARY: ...that part of a river or stream or other body of water having unimpaired connection with the open sea, where the sea water is measurably diluted with fresh water derived from land drainage. The term also includes estuary-type areas of the Great Lakes [17:1490].

SECRETARY: ...the Secretary of Commerce.

MANAGEMENT PROGRAM: ...includes, but is not limited to, a comprehensive statement in words, maps, illustrations, or other media of communication, prepared and adopted by the state in accordance with

the provisions.... [of Public Law 92-583], setting forth objectives, policies, and standards to guide public and private uses of lands and waters in the coastal zone [17:1491].

WATER USE: ...activities which are conducted in or on the water; but does not mean or include the establishment of any water quality standard or criteria or the regulation of the discharge or run-off of water pollutants except the standards, criteria, or regulations which are incorporated in any program as required by the provisions of section 307(f) [of Public Law 92-583] [17:1491].

LAND USE: ...activities which are conducted in or on the shorelands within the coastal zone, subject to the requirements outlined in section 307(g) [of Public Law 92-583] [17:1491].

CZMA: Coastal Zone Management Act of 1972 (Public Law 92-583).

CZMP: State Coastal Zone Management Program.

NATIONAL DEFENSE MISSION: The basic combat operational missions of aerospace forces are (this order is not intended to indicate priority): (1) strategic attack; (2) counter air; (3) air interdiction; (4) close air support; (5) aerospace defense of the United States; (6) aerospace surveillance and reconnaissance; (7) airlift; and (8) special operations [18:3-2].

MISSION SUPPORT FUNCTIONS: Functions of personnel, training, logistics, security, orbital operations of space systems, recreation, health, education, and morale (18:3-2).

## JUSTIFICATION

The Federal Government was given the following directive by President Nixon in Executive Order 11507, dated February 5, 1970:

...the Federal Government in the design, operation, and maintenance of its facilities shall provide leadership in the nationwide effort to protect and enhance the quality of our air and water resources [16:56].

With the enactment of the Coastal Zone Management Act of 1972, increased emphasis has been placed upon the nation's coastal zones. In a letter dated July 24, 1973, to the Major Commands of the USAF, Brigadier General William D. Gilbert, Deputy Director of Civil Engineering, Headquarters, USAF, emphasized the need for coordination by the base with the responsible state agency:

...It is Air Force policy to cooperate and coordinate with the states in their development of CZM (Coastal Zone Management) programs and to review state plans and accompanying environmental statements to insure that defense interests are protected.

...Unless the plans adequately consider national defense, the CZM program could adversely affect defense operations and facilities [2:1].

General Gilbert further stated:

After state programs are approved by the Secretary of Commerce, Air Force activities...will be consistent with the approved state programs to the maximum extent practicable, while insuring that defense interests are protected [2:1].

Mr. Ervin J. Bedker, Coastal Zone Programs Project Manager, Plans and Programs, Directorate of Civil Engineering, Headquarters, USAF, stated in a telephone interview that the USAF needs guidelines established to enable bases to analyze their state's coastal zone management proposal to insure that the USAF mission of national defense is not compromised by the state program. He suggested that through analysis of the California and Washington draft proposals and the CZMA itself, guidelines could be determined to aid affected bases in other coastal states in analyzing their state's CZMP and to be able to express Air Force concerns at the earliest conceptual planning phases of

the CZMP (1). Other states were found to have existing legislation and/or a draft CZMP. These CZMPs were included in the study as they became available.

#### BACKGROUND

The Coastal Zone Management Act of 1972 was enacted:

To establish a national policy and develop a national program for the management, beneficial use, protection and development of the land and water resources of the Nation's coastal zones, and for other purposes [17:1489].

. Congress found (1) that there is a national interest in our coastal zone because of a variety of rich resources, i.e., natural, industrial, recreational, and esthetic; (2) that due to population and economic growth, marine life has diminished, adverse changes to ecological systems have occurred, and there are fewer areas for public use; and (3) that the key to protecting the coastal zone is to encourage the states to exercise their full authority over the lands and waters in that area (17:1489).

The national policy, as declared by the Congress, is to (1) conserve and restore the resources of our coastal zones for present and future generations, (2) provide the coastal states the necessary assistance to carry out their responsibilities in the effective use of land and water resources in the coastal zone, (3) insure that all Federal agencies cooperate and participate in effectuating the national policy, and (4) encourage the participation and

cooperation of all concerned individuals and agencies (17:1490).

The CZMA provides financial assistance to the coastal states to aid in developing a land and water resources management program. The program should include identification of areas considered in the coastal zone, definition of acceptable uses of the land and water resources, a list of the high priority areas, a list of control devices or judicial decisions which affect the program, and a description of the organizational structure to be used. The annual grants cannot exceed two-thirds of the program cost in any one year. The Secretary must renew each grant annually. The state may allocate a portion of the grant to another designated agency with the approval of the Secretary (17:1491).

The states are also eligible for annual financial assistance to administer the approved CZMP. To approve the state's CZMP, the Secretary must determine: (1) that all interested individuals and agencies have had sufficient opportunity and time to express their interest in the program before it is submitted by the state, (2) that a continuing consultation and coordination system has been developed for all agencies affected by the program, (3) that the national interest requirements are adequately considered (17:1492), and (4) that the agency designated by the state to administer the program has power

(1) to administer land and water use regulations, control development in order to ensure compliance with

the management program, and to resolve conflicts among competing uses; and

(2) to acquire fee simple and less than fee simple interests in lands, waters, and other property through condemnation or other means when necessary to achieve conformance with the management program [17:1493].

The CZMA requires interagency coordination and cooperation. The Secretary cannot approve a state management program "unless the views of Federal agencies principally affected by such program have been adequately considered [17:1494]." Section 307(C) further states:

(1) Each Federal agency conducting or supporting activities directly affecting the coastal zone shall conduct or support those activities in a manner which is, to the maximum extent practicable, consistent with approved state management programs.

(2) Any Federal agency which shall undertake any development project in the coastal zone of a state shall insure that the project is, to the maximum extent practicable, consistent with approved state management programs.

(3) After final approval by the Secretary of a state's management program, any applicant for a required Federal license or permit to conduct an activity affecting land or water uses in the coastal zone of that state shall provide in the application to the licensing or permitting agency a certification that the proposed activity complies with the state's approved program and that such activity will be conducted in a manner consistent with the program... [17:1494-1495].

The state has six months to notify the applicant of its decision on any proposed activity. If no reply is received, then the "certification shall be conclusively presumed [17:1494-1495]." Even if a state or Federal agency disapproves, the Secretary can judge the proposed activity to be in the interest of national security or in compliance with the CZMA, thus overriding the objections of the state or Federal agency (17:1494-1495).

Public hearings are required and must be announced a minimum of thirty days prior to the hearing date. All pertinent materials to the hearing and any subsequent materials must be made available to the public for review and study (17:1496).

The Secretary is also:

...directed to establish a Coastal Zone Management Advisory Committee to advise, consult with, and make recommendations to the Secretary on matters of policy concerning the coastal zone [17:1496].

The CZMA does not affect earlier environmental legislation, such as the Federal Water Pollution Control Act, as amended, or the Clean Air Act, as amended. Nor does it affect Federal Government regulations or state or local government legislation pursuant to the above mentioned Acts (17:1494).

At this time, only a few states have advanced to the proposal stage of their coastal zone management programs. This is largely due to existing legislation designed for the basic protection of the coastal zone in these states. Therefore, only the draft proposals of Delaware, Maryland, South Carolina, Virginia, Washington, Florida, and California provided the basis for this study.

#### OBJECTIVE

The objective of this study was to analyze the individual states' CZMP proposals and from these analyses develop guidelines to be used by any USAF coastal zone base's Civil Engineer (CE) in analyzing that state's coastal zone



management program. These guidelines would also enable that base's CE to convey the USAF's requirements to the state agency responsible for the coastal zone program during the program's earliest conceptual planning stage. The purpose of the guidelines is to (1) insure that the USAF national defense mission is not impaired by that program and (2) minimize any adverse effect on the mission support functions.

#### RESEARCH QUESTIONS

Answers to the following questions provided the information necessary to reach the research objectives:

1. In what ways are the states' coastal zone management proposals similar or different?
2. In what ways will the states' coastal zone management proposals affect the national defense mission and the mission support functions of the USAF bases located in those states?
3. What guidelines can be proposed to enable the coastal zone USAF base CE to express the USAF requirements to the state agency responsible for the CZMP of that state in order to maximize benefits and minimize any possible detriments to the national defense mission and mission support functions of the USAF?

## CHAPTER II

### APPROACH

The coastal zone management program proposals were analyzed for their impact on two general areas: the national defense mission of the USAF and its mission support functions. In order to facilitate the analysis, the state proposals were analyzed to determine in what areas they were similar in regard to the administration of the programs. From this comparison, categories were developed based on (1) the level of government (state, regional, county, or city) at which specific standards were set and (2) the level of government at which programs will be administered. The material was then synthesized and conclusions were drawn about the impact of the proposals on the USAF mission and support functions. From these conclusions a recommended set of guidelines was developed to aid USAF coastal zone installations in providing guidance to the appropriate state agency at the earliest possible planning stages of the state's CZMP.

The proposals have been analyzed to determine their general scope and objectives. Primary areas analyzed were (information permitting): (1) the limitations placed on natural resources, including water, fuel sources, and vegetation, (2) additional pollution control required over existing pollution control legislation, including water, air, sewage treatment, and noise, (3) restriction on land use,

water use, and master planning, (4) coordination required between USAF and state agencies prior to any development activity, and (5) identification of the coastal zone boundaries. In addition to the five topics above, any other areas addressed by the state draft proposals have been included in this analysis.

The proposals were compared for similarities and differences on the basis of those administrative procedures utilized to develop and carry out the programs.

The conclusions and recommendations were determined from the areas covered by the analysis of the draft proposals and have been presented in two areas: the national defense mission and the mission support functions.

#### LIMITATIONS AND ASSUMPTIONS

This study has been limited to analysis of those state CZMPs received as of May, 1976, when this study was completed. These included California, Delaware, Florida, Maryland, South Carolina, Virginia, and Washington. These programs, being in the proposal stage, could differ greatly in their final form. Also, due to differences in topography, climate, and many other aspects, there is no reason to assume that the proposals will serve as a framework for other coastal states' programs.

## CHAPTER III

### CATEGORIZATION

#### Introduction

The states' CZMPs were categorized based on two criteria. The first, or primary, criterion was the level of government within the state that was tasked to develop the rules and regulations of the CZMP. All CZMPs originated from a state level agency. However, some CZMPs were found to be general guidelines for a lower government level -- regional, county, or city -- to develop into the specific rules and regulations necessary for the administration and enforcement of the CZMP. Some states were also found to rely upon a centralized state level agency for both the general and specific policies.

The secondary criterion for categorization was the level of government within the state that was tasked with administration and enforcement of the CZMP. Again, this ranged from a centralized agency in the executive branch of the state government to a local agency responsible only to a city or county.

#### First Criterion: Level of Government Tasked to Develop Rules and Regulations

Under the first criterion Delaware, Maryland, South Carolina, Virginia, and California were found to have a centralized, or state, agency involved in the development of

the specific policies rather than just a broad framework for a lesser agency to develop. For Delaware, the agency tasked with CZMP development is the Coastal Zone Management Committee, an agency of the Delaware State Planning Office (6:1). The Coastal Zone Management Staff of the Department of Natural Resources is the state agency responsible for the Maryland CZMP (11:4). In South Carolina, the Coastal Zone Council of the Wildlife and Marine Resources Department will develop the South Carolina CZMP (12:Sections 6 and 8). In Virginia, the Division of State Planning and Community Affairs will be responsible for developing a management program along existing legislation (14:1). The Coastal Commission was established at the state level in California by Proposition 20 of the November, 1972, election to prepare a "comprehensive, coordinated, enforceable plan... [5:17]." Along with the State Commission, six Regional Commissions were established to coordinate regional requirements to the State Commission (5:17).

Under the first criterion, the Washington State CZMP is limited to only broad guidelines. Local agencies are then tasked to develop a CZMP fitting the Washington State guidelines as developed by the state agency -- the Department of Ecology. The local CZMPs are subject to review and approval by the Department of Ecology (15:27). In Florida, the state agency -- the Division of Resource Management of the Department of Natural Resources -- is tasked "to review, upon request, all plans and activities

pertinent to the coastal zone and to provide coordination in these activities among the various levels of government and areas of the state [7:3]."

Second Criterion: Level of Government Tasked With Administration and Enforcement

With regard to the second criterion, Delaware and Maryland are the only states with centralized administration and enforcement. The same agencies responsible for development of the CZMP are responsible for administration and enforcement (6:1)(11:4). South Carolina and Virginia have state agencies to accomplish the policing of their CZMPs if the local agencies elect not to do so (12:Section 11)(14:18). California, Washington, and Florida rely on local enforcement (5:159)(15:29)(8:2). All of the states' CZMPs have an appeal system where the responsible agency first reviews applications. If rejected at this initial level, the application can be appealed to state level agencies or the courts whichever is applicable.

## CHAPTER IV

### ANALYSIS

The analysis of the state CZMPs consisted of the evolution of the proposed programs, their goals and/or objectives, and the administrative procedures by which they accomplished their objectives. The level of detail was limited by the stage of development of the CZMP proposal.

The California CZMP proposal was the most detailed. It contained both general and specific policies while all others were only general outlines to aid the responsible agency, or agencies, in structuring their individual CZMPs. Due to the general lack of indepth detail among other states' CZMPs, only California was analyzed in great depth. In this chapter, the proposed CZMPs which were classified as being centralized in regard to the development of the proposals will be discussed first. Next, the CZMPs which were classified as decentralized under the first criterion will be discussed. An indepth analysis of the California CZMP is also included.

### DELAWARE

Coastal zone regulation in Delaware was initiated with a 1970 Governor's Task Force on Marine and Coastal Affairs. This Task Force was organized as a result of deterioration in the coastal environment due to uncontrolled

industrial growth. The Task Force recommended that no further environmentally damaging industrial growth be allowed and also recommended prohibition of a planned deep water port in Delaware Bay. The Task Force's recommendations were the basis for the Coastal Zone Act of 1971 which dealt primarily with industry. Further committees similar to this Task Force and associated studies have resulted in additional coastal zone protection legislation. These include the Wetlands Act of 1973 and the Beach Preservation Act of 1972. Two events -- a reorganization of the Executive branch of the State government which consolidated previously autonomous agencies and the enactment of the CZMA -- have given new emphasis and power to properly control growth in the coastal zone of Delaware (6:1-3). Delaware also joined with New Jersey, Pennsylvania, Maryland, Virginia, and North Carolina in organizing the Middle Atlantic Governors Coastal Resources Council to coordinate state coastal zone policies (11:10).

The goals that the Delaware CZMP is using to maintain a course of action in lieu of yielding to "...the pressures of the many diverse and often conflicting uses ...[6:17]" include:

(1) Preserve and improve the quality of life and the quality of the marine and coastal environment for recreation, conservation of natural resources, wildlife areas, aesthetics, and the health and social well being of the people.

(2) Promote the orderly growth of commerce, industry and employment in the coastal zone of Delaware compatible with the first goal.

(3) Increase the opportunities and facilities in Delaware for education, training, science and research in marine and coastal affairs [6:17].



The specific objectives of the Delaware CZMP are:

- (1) Develop criteria for evaluation of uses of the coastal zone within the parameters established by the first goal.
- (2) Determine the compatibility and appropriate mixtures of uses of the zone.
- (3) Protect the in-shore and marsh areas from pollution and unwise exploitation.
- (4) Develop and implement a system of criteria, standards and regulations for control of land and water uses within the coastal zone.
- (5) Provide for a focus for coastal zone management in the executive branch of State government.
- (6) Establish a mechanism for interagency and intergovernmental coordination and reconciliation of coastal affairs.
- (7) Create a coastal research program to furnish scientific and technical information necessary for coastal zone management decisions [6:17-18].

The procedures for enforcement of the Delaware CZMP have not been developed at this time. Task number nine in the Work Program Detail Section of the Delaware Coastal Zone Management Program Application for the second year deals with developing regulatory mechanisms (6:44).

#### MARYLAND

Maryland is in the second year of a three year development period on their CZMP. The Department of Natural Resources is the lead agency with coordination and active involvement coming from the departments of State Planning, Agriculture, Economic and Community Development, Health and Mental Hygiene, and Transportation. The emphasis of the Department of Natural Resources is as a technical advisor to agencies with legislated authority (10:1).

The broad goals of the Maryland CZMP, which considers coastal related interests and impacts on statewide

rather than local basis, are to:

- resolve conflicts among competing coastal uses;
- promote rational use of coastal resources;
- protect valuable coastal areas [10:Front Page].

The overall goal of Maryland's Coastal Zone Management Program is to develop a management program that will provide for rational allocation and utilization of the State's coastal resources while protecting, enhancing, and, where desirable and feasible, restoring the biological, recreational, aesthetic, scientific, historical and cultural resources in the State's coastal areas...[11:1].

Five specific objectives have been defined to be achieved by the Maryland CZMP:

1. To identify, and develop mechanisms to protect coastal areas of biological, recreational, aesthetic, scientific, historical and cultural importance; and identify and provide for the rational development of developmental critical areas in the State's coastal zone.
2. To develop guidelines and standards regarding the conduct of activities occurring in other portions of the State's coastal zone so that they do not adversely affect such areas or the productivity of the State's coastal areas.
3. To develop mechanisms, including the setting of priorities, to guide public and private utilization of coastal resources in order to minimize conflicts among uses and to protect the natural resource base on which coastal uses depend.
4. To utilize existing State and local governmental programs wherever possible to implement the program.
5. To provide for full opportunity for participation by relevant Federal, State and local governmental agencies, interested organizations, and the general public in the development of the program [11:1].

Existing programs which can be utilized to implement portions of the Maryland CZMP were under study. Preliminary assessment of the state's environmental management authority found it compatible with the CZMA. No new major legislation was deemed necessary. However, streamlining of existing

authority may be necessary for a coherent program (10:1).

#### SOUTH CAROLINA

The Governor of South Carolina created the Coastal Zone Planning and Management Council (hereafter called the Council) by Executive Order on August 15, 1973. It is charged to provide the planning and research necessary to develop and recommend to both the Governor and General Assembly "a planning and a management program designed to promote public health, safety and welfare in and insure the maximum beneficial use of the South Carolina Coastal Zone [13:5]."

The efforts of the Council led to a Bill which is in draft form and will be introduced into the next session of the General Assembly. The purpose of the Bill is

To provide for the protection, enhancement, development, and management of the Coastal Zone; To establish a Council with responsibility and authority for developing, coordinating and maintaining a Coastal Zone Program; To establish a Coastal Zone Permit System; and To provide for the enforcement of this Act [12:Cover].

The primary State policy established by this Bill is to protect

...the quality and special extent of the coastal zone while recognizing and accounting for the economic and social goals of coastal residents and of all the people of the State [12:Section 2a].

Specific state policies established in this Bill are as follows:

(1) To recognize the economic, [social, and ecological] aspirations of the inhabitants of the coastal zone and to encourage the development of

coastal resources in ways that will improve the overall economic position of the citizens of that area within the framework of a program that preserves the environmentally productive and fragile areas from inappropriate development and provides adequate environmental safeguards for the construction of any facilities in the Coastal Zone;

(2) To protect and, where possible, to restore or enhance the resources of the State's coastal zone for this and succeeding generations;

(3) To formulate a comprehensive tidal wetlands protection program;

(4) To formulate a comprehensive beach erosion and protection program including the protection of the sand dunes that are essential to such a program;

(5) To encourage and assist state agencies, counties, municipalities, and regional agencies to exercise their responsibilities and police powers in the coastal zone through the development and implementation of compatible comprehensive plans to achieve wise use of coastal resources giving full consideration to ecological, cultural, historic, and aesthetic values as well as to the needs for economic and social development and resource conservation;

(6) In areas of the coastal zone which are inappropriate for development, development activities which require riparian or littoral locations shall be given priority over other activities [12:Section 2b].

The policy is also established to coordinate all statewide coastal planning with planning of adjacent states and other organizations of coastal states (12:Section 2c).

A Council is established to apply for and expend financial assistance from all sources, including Annual Management Development Grants from the Department of Commerce in accordance with CZMA. The Council is to then undertake the planning and programs necessary to accomplish the policies stated above, to hold public hearings and solicit participation from all governmental groups and other interested parties, to promulgate rules and regulations necessary to support the provisions of the Bill, and to

administer all provisions of the Bill and those promulgated under it (12:Section 6).

Within two years of the passage of the Bill, the Council is to develop a comprehensive CZMP incorporating the Federal requirements under the CZMA and the provisions of the Bill and the rules and regulations promulgated by it. After approval, the Council will administer and enforce the CZMP. Specific areas to be included in the CZMP are: (1) to identify coastal resources and present land uses; (2) to evaluate these resources for present and future uses; (3) to define permissible land and water uses within the coastal zone; (4) to identify areas of particular concern; (5) to establish broad priorities for uses in particular areas; (6) to provide consideration of the interests at all levels of government in siting public utilities, services, and transportation facilities; (7) to provide for a review process involving all levels of government; and (8) to consider whether an applicant for a permit complies with the CZMP. The Council is also to notify any concerned Federal agency as to whether the state objected or approved of any proposed activity (12:Section 9).

A permit system will be instituted upon passage by the legislature and approval by the Governor of the Bill. Following this approval, "no person shall undertake development activities in land and water areas specified within the plan without first obtaining a permit from the Council [12:Section 13]." General considerations to be used when

evaluating whether a permit application is in the public interest are:

(i) Whether or not the activity requires a waterfront location or is economically enhanced to a significant degree by its proximity to the water.

(ii) Whether or not any unreasonably harmful obstruction to or alteration of the natural flow of navigable water will arise as a result of the proposal.

(iii) Whether or not the activity will increase erosion, shoaling of channels, or create stagnant areas of water.

(iv) Whether or not the completion of the applicant's project will unreasonably interfere with the production of fish, shrimp, oysters, crabs and clams or any marine life or wildlife or other natural resources, including but not limited to water and oxygen supply.

(v) Whether or not the development would unreasonably reduce or impose restrictions upon public access to tidal and submerged lands, and beaches or other recreational coastal resources.

(vi) Whether or not the development would unreasonably interfere with habitats for rare and endangered species of wildlife or irreplaceable historic or archeological sites, or aesthetic amenities unique to South Carolina's coastal zone.

(vii) Whether or not the economic and social benefits from the project exceed the benefits from preservation of an area in its unaltered state.

(viii) Whether or not all feasible safeguards have been taken to avoid adverse environmental impact resulting from a project.

(ix) Uses that would result in significant adverse effects on the value and enjoyment of their property by adjacent owners [12:Section 14].

The Council will have thirty days on permits for minor development and ninety days on other developments to notify the applicant in writing of its decision. Where it is deemed to be controversial or of regional impact, the Council will hold a public hearing with two weeks advanced notice (12: Section 15).

If it denies the permit, the Council will notify the applicant by registered mail including the reasons for rejection.

tion. The applicant then has thirty days to give written notice of his desire for a hearing or the rejection becomes final. After the hearing, the Council notifies the applicant of their sustained rejection or approval. The applicant has thirty days to file a complaint in the circuit court having jurisdiction over the land. If the thirty days pass, the decision becomes final (12:Section 17).

### VIRGINIA

The information on Virginia's Coastal Zone Management Program was not complete. The information indicated that the state was still in the early development stage of their plan.

Their coastal zone management boundary apparently will be

Based on those political subdivision lines which most closely approximate the extent of uses of direct and significant impact and which encompass all management controls proposed to deal with them [14:5].

Research on permissible land and water uses is being conducted. The recommendations will be reviewed and debated at public forums (14:7-8). The impact of facility siting, in regard to national interest, will be considered from the aspect of assuring that land and water use controls do not arbitrarily exclude uses of regional benefit (14:9).

Work was being done to identify all agencies -- Federal, state, and local -- that will affect or be affected by the CZMP. Interagency interaction and coordination is a major goal of the program (14:10-11). Public participation

is also recognized as essential for the successful accomplishment of the program. This area will deal with the education, information, and input of the state's citizens.

Under current legislation, the state agency establishes the standards for environmental controls. If the local governments do not enact local plans, the state agency has the authority to impose a plan on them (14:18).

## WASHINGTON

### Introduction

The late 1960s saw a rise of public outcry in the State of Washington over the many uses and abuses of the state's water resources and the adjacent shorelines. In 1970, the legislature created the Department of Ecology to increase the effectiveness of the state's administrative responsibilities for environmental management (4). In 1971, the State Environmental Policy Act of 1971 (SEPA) was passed exhibiting similarity in both intent and directive to the National Environmental Policy Act of 1969. SEPA is primarily a disclosure statute that requires environmentally sound planning. SEPA also requires the airing of issues involving government decision making, thus increasing public scrutiny of proposed actions (15:1).

SEPA proclaims:

[a] strong statement of environmental rights and responsibilities.... [in] 'that each person has a fundamental and inalienable right to a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment' [15:2].



In 1969, a Washington State Supreme Court decision found a landfill to be illegal in one of the state's lakes and ordered it removed. The basis for this decision was that the public had a right to go wherever there are navigable waters. The court also concluded that a judicial case-by-case attack on this growing problem was inadequate. The court urged the legislature and the executive branch to develop a comprehensive shoreline planning and regulation program (15:2).

#### Shoreline Management Act of 1971

The Washington Environmental Council became discouraged by the Legislature's failure to enact coastal management legislation and circulated a petition which gained sufficient popular support to require action by the legislature. One of the options under the State Constitution when presented with a popular mandate is to propose an alternative to the public initiative. This was the course chosen by the legislature and the Shoreline Management Act of 1971 (SMA) was the result. It became effective June 1, 1971, subject to ratification in a November, 1972, election. In this election, the people of Washington were given the choice of no shoreline management or shoreline management with two choices: (1) the public initiative or (2) the SMA. The difference between (1) and (2) was that the public initiative involved lands from the shoreline inland 500 feet and gave the technical administrative responsibility to the Department of Ecology, while the SMA had a 200 feet inland limit and

placed the bulk of the technical administration in the hands of local governments. The SMA was the choice of the people. This indicated that the SMA had been an effective law which answered the public demands during the 17 months it was in force and operating prior to ratification. The SMA established as "the policy of the state to provide for the management of the shorelines of the state by planning for and fostering all reasonable and appropriate uses [15:2-3,30]."

Other findings of the legislature in establishing policy in the SMA were:

...that the shorelines of the state are among the most valuable and fragile of its natural resources and that there is great concern throughout the state relating to their utilization, protection, restoration, and preservation. In addition it finds that ever increasing pressures of additional uses are being placed on the shorelines necessitating increased coordination in the management and development of the shorelines of the state. The legislature further finds that...coordinated planning is necessary in order to protect the public interest associated with the shorelines of the state while, at the same time, recognizing and protecting private property rights consistent with the public interest. There is, therefore, a clear and urgent demand for a planned, rational, and concerted effort, jointly performed by federal, state, and local governments, to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines [15:3].

#### SMA Requirements

Requirements of SMA are a planning program and a regulatory permit system, both initiated by local governments under guidance by the state. Each local government establishes a planning program consisting of a comprehensive shoreline inventory and a master program for shoreline use regulation. The inventory consists of (1) existing land and

water uses, (2) generalized ownership patterns, and (3) characteristics of the natural shoreline. The master program utilizes the information from the inventory and is an environmentally oriented comprehensive land use plan. The master program consists of (1) basic goals and objectives, (2) the categorization of all shoreline areas, and (3) specific regulatory procedures. These local master programs are subject to state review and approval and, after approval, then are adopted as state regulations (15:29).

The SMA has established priorities for the uses of shorelines of statewide significance. The area of statewide significance includes generally all saltwater shorelines, lakes with a surface acreage exceeding 1,000 acres at ordinary high water mark, any rivers west of the Cascade range exceeding a mean annual flow rate of 1,000 cubic feet per second, and those rivers east of the crest of the Cascade range where annual flow exceeds 200 cubic feet per second or downstream of the first 300 square miles of drainage area (15:29). The order of preference for uses is:

- (a) Recognize and protect the statewide interest over local interest.
- (b) Preserve the natural character of the shoreline.
- (c) Result in long-term over short-term benefits.
- (d) Protect the resources and ecology of the shoreline.
- (e) Increase public access to publicly owned areas of the shorelines.
- (f) Increase recreational opportunities for the public in the shoreline [15:30-31].

For any area where the shoreline has already been altered from the natural condition, the following order of

priorities apply:

(1) single family residences; (2) ports; (3) shoreline recreational uses; (4) industrial and commercial developments that are particularly dependent upon their location on or use of shorelines; and (5) other developments which will provide an opportunity for substantial numbers of people to enjoy the shorelines [15:31].

Due to the water dependent industry receiving priority, a concept of water relativity emerged and most local master programs adopted the following three preference classes:

(1) Water-dependent uses are those uses which cannot logically exist in any other location but on the water.

(2) Water-oriented uses are uses which are helped by their location on the shoreline, but it is possible for them to locate away from the waterfront with existing technology.

(3) Non-water oriented uses are all uses which can locate equally well away from the waterfront [15:31-32].

### Guidelines

The Department of Ecology (DOE) established policy guidelines for constructing master programs for the local governments. Three areas of particular emphasis in these guidelines are classification of shoreline environments, permissible and priority uses, and the treatment of shorelines of statewide significance (15:32).

The classification system set forth by the guidelines suggests four environmental types -- natural, conservancy, rural, and urban -- based on the existing development patterns, the biophysical capabilities, and the goals and aspirations of the local populace. The categoriza-

tion system is designed to encourage uses in each category environment area to enhance the character of that environment. These categories will be used in the inventories of each local program (15:32).

DOE includes in the guidelines criteria for evaluation of proposed shoreline development while local master programs are under development. These cover 21 areas with brief policy summaries. Areas covered are: Agricultural Practices, Archaeological Areas and Historic Sites, Aquaculture, Breakwaters, Bulkheads, Commercial Development, Dredging, Forest Management Practices, Jetties and Groins, Landfill, Marinas, Mining, Outdoor Advertising, Piers, Ports and Water-Related Industry, Recreation, Residential Development, Road and Railroad Design and Construction, Shoreline Protection, Solid Waste Disposal, and Utilities (15:34-36).

To establish "a solid foundation of state policy to underlay the needed diversity of local master programs [15:36], " the guidelines establish development guidelines for each of the six use preferences to aid the local agency in maintaining the use preference system (15:37).

#### Coastal Zone Description

The coastal zone includes 15 counties and 38 incorporated towns. 15 of the cities will use the coastal county programs. Thus, the total number of separate programs is reduced to 38 -- 15 counties and 23 cities. The DOE guidelines establish a three phase program for local

master program development. Phase one is the shoreline inventory. Phase two establishes citizen advisory committees, develops area-wide goals, and develops shoreline policy statements. Phase three defines environments on all shorelines and develops shoreline use regulations. The state gathers funds from all applicable Federal, state, and local levels and distributes them to the local planning committees. The passage of the CZMA in 1972 increased the availability of Federal funds and through 1975 \$860,000 had been disbursed to assist local governments in complying with the SMA and CZMA (15:37-39).

The coastal zone in Washington is divided into two tiers. The first tier bounded by the "resource boundary" includes those lands defined in the SMA as:

...all of the state's marine waters and their associated wetlands, including a minimum all upland area 200 feet landward from the ordinary high water mark [15:115].

The first tier is established as an area of permit authority under the SMA. The second tier is the planning and administrative tier and includes all land in the 15 counties bordering saltwater including the saltwater intrusion limit of the Columbia River. The use of two tiers gives the state a basis to differentiate between need and intensity of control practiced. The most immediate and direct control will be placed on the land seaward of the Resource Boundary (in the first tier) and through processes established by the SMA. The outer tier will be controlled to the extent of its direct and significant impact on the first tier and marine

waters (15:115-117). Under the technical definition of Section 304(a) of the CZMA, all lands solely at the jurisdictional discretion of the Federal government and its agencies are excluded from the state's control. All Federal lands held under a concurrent, partial, or proprietorial jurisdictional status will be included because the state retains varying degrees of discretion as to the uses of such land. The CZMP and CZMA emphasize maximum cooperation between Federal and state/local agencies in administering the rules and regulations of the State CZMP. The state expects that through this cooperation that Federal land managers will not have any difficulty in complying with the spirit as well as the letter of the state CZMP and the Federal consistency provisions of Section 307 of the CZMA (15:117-118; 130-131).

#### FLORIDA

The coastal zone in Florida is considered its most valuable asset (3). Its coast line is the second largest in the United States. Even though the coastal zone comprises only some 28% of the state's land area, it contains approximately 75% of the state's 1972 population. In addition, the coastal zone is growing at a rate of 6,000 per week (9:2).

In recognition of coastal zone importance, the Coastal Coordinating Council was created in 1970.

The Council was given four primary charges:  
(1) to... 'develop a comprehensive state plan for the protection, development and zoning of the coastal zone, making maximum use of any federal funding for this purpose.'

(2) to...'conduct, direct, encourage, coordinate, and organize a continuous program of research into problems relating to the coastal zone.'

(3) to...'review, upon request, all plans and activities pertinent to the coastal zone and to provide coordination in these activities among the various levels of government and areas of the state.'

(4) to...'provide a clearing service for coastal zone matters by collecting, processing and disseminating pertinent information relating thereto' [7:3].

The Coastal Coordinating Council was abolished by the Florida Environmental Reorganization Act of 1975. Its duties, powers, staff, and functions were reassigned to the Division of Resource Management (DRM) in the Department of Natural Resources. The state legislature also passed the Local Government Comprehensive Planning Act of 1975 and under this act every municipality and county will have to prepare and adopt a comprehensive plan. If the local government does not comply, the DRM will develop a plan for them. The DRM will cooperate and work with the local governments in preparing these plans and must review the coastal zone element of the comprehensive plan (8:1-2).

The local governing bodies possess final authority on proposals. Objections by the state land planning agency and other interested agencies to proposed plans will be reviewed by local governments (8:2).

They will have four weeks to reply and may then, after an additional two weeks, adopt or adopt with change or amendments, despite any adverse comments received [8:2].

In summary, the state agency acts as a central contact point with the Federal government for the state and local governments. The state agency collects, reviews, and



disseminates information to the concerned agencies. It is up to the local Federal officials to make their agency's positions known to the local governments.

## CALIFORNIA

### Introduction

The California CZMP includes an indepth study of factors which affect the natural and scenic resources of the coastal zone. Of the 162 policies outlined in the proposal, many will have a significant impact on the planning and actions of the USAF installations in the affected area. A summary has been compiled of the major points of the proposal, and an analysis of the effect of various policies on the USAF will follow the summary.

The California Coastal Plan (CZMP) is a result of the CZMA and the 1972 California Coastal Initiative (Proposition 20). The Coastal Initiative stated the state policy concerning the coastal zone as being:

...to preserve, protect, and where possible, to restore the resources of the coastal zone for the enjoyment of the current and succeeding generations [5:16].

But, the 1972 initiative did not provide for permanent protection, so the CZMP has been drafted to create permanent legislation for coastal zone protection.

The CZMP describes the California coastline as a national resource with:

Use of the coastal land area and adjacent waters for national defense and national security [being] of paramount importance to the country because of military installations located along the coast [5:29].

The CZMP reiterates Section 307(C) of the CZMA as excluding from the coastal zone those lands where an agency of the Federal Government has the sole discretion over the use. The CZMP also restates the Federal consistency statement from the CZMA that each Federal agency will conduct its activities to the maximum extent practicable consistent with any approved state program (5:30).

The CZMP states that California interprets this exclusion to include all lands and waters used for national defense within the coastal zone under the jurisdiction of the Department of Defense. It also states that planning for areas surrounding military installations shall be coordinated with the appropriate Department of Defense agency to resolve any conflicts (5:30). However, it then states:

...just as military operations should be protected from incompatible surrounding uses by the coastal zone management program, it is anticipated that Federal agencies, being equally aware that environmental problems do not respect jurisdictional boundaries, will do their utmost to comply with applicable Coastal Plan policies [5:30].

The CZMP acknowledges extensive assistance and cooperation from many Federal agencies, particularly the U.S. Navy and Army Corps of Engineers, in preparation of the document. Through this cooperation, "there has been an opportunity for national interests, as perceived by Federal agencies, to be incorporated in....the Plan [5:30]."

Continued cooperation ensures that the national interest is protected through:

...uniform application of the Coastal Plan policies to the entire coastal zone by whichever local, state, or Federal agency has regulatory jurisdiction [5:30-31].

It may be necessary to amend or override the CZMP when there is a conflict with an overriding national need, but the CZMP states that:

Such cases can be expected to be rare. Except for national defense and national security needs as established by the President and the Congress, the determination of national interest needs, along with any measures necessary to mitigate the adverse impacts of meeting those needs, should be made cooperatively by the affected local, regional, state, and Federal agencies [5:31].

#### Summary of California Coastal Plan Policies

Basic goals. The basic goals (Policy 1) of the California CZMP are the protection, enhancement, and restoration of both natural and man-made resources. Areas of specific interest are: to encourage a balanced, concentrated development in order to avoid sprawling urbanization, to maximize access to the coastal zone for people of all income ranges, to give priority to development that is dependent on a coastal location, and to avoid irreversible and irretrievable commitment of coastal zone resources (5:36).

Marine environment. Protection of coastal waters is covered by Policies 2 through 20. Policies 2 through 5 require the maintenance of a balanced marine environment. All uses of this marine environment -- commerce, food supply, waste disposal, mineral extraction, and recreation -- must

utilize procedures sustaining the productivity of coastal waters and all marine organisms. Provisions for promoting and monitoring the commercial fishing industry are included (5:38-39).

Policies 6 through 10 cover water quality, including waste and thermal discharges. These policies will result in increased research, increased quality of waste discharges, and phasing out of discharge of wastes into enclosed bays and estuaries. Sewage systems will be upgraded to meet Federal standards. New developments will not be connected into substandard sewage systems. The reuse of adequately treated waste water for agricultural, industrial or domestic facilities is encouraged. Intake seawater and heated or cooled discharges will be reduced consistent with the most stringent of Federal or state standards. Clustering of industries where one industry uses the others' heated or cooled discharges is recommended. Also, recycling and minimizing discharges are recommended (5:40-43).

Policies 11, 12, and 13 are concerned with facility design to prevent or minimize adverse effects of petroleum spills, establishment of research and regulations to determine spill sources, and enforcement of liability for all damages caused by spills (5:44-46).

Policies 14 through 17 require special protection for estuaries and coastal wetlands. Control and treatment of water runoff to prevent degradation of coastal waters, restriction of development in wetlands, limitations on

development near coastal waters, and limitations on dredging, diking, and filling are covered by these policies (5:46-49).

Restrictions on structures which alter the natural shoreline -- revetments, breakwaters, channels, seawaters, and other such construction -- are explained by Policies 19 and 20. Minimizing the use of such structures, restoration of shoreline and sand supplies, and liability for damages caused by such structures are parts of these policies (5:50-51).

Coastal land environment. The subject of Policies 21 through 43 is the protection of the coastal land environment. Of these, Policies 21 through 25 are concerned with coastal streams and watershed management. Comprehensive watershed management plans will be developed to provide long-term assurances that coastal groundwaters, streams, wetlands, and estuaries are not adversely impacted by coastal upland and shoreland use and development. The watershed management plans will address surface and subsurface water supplies, coordinated wastewater management, water conservation, and effect of development on the water supply programs. Development that individually or cumulatively requires importation of water is to be restricted due to potential high energy demands to import water and in order to discourage inappropriate developments. Any structures or activities which will impair coastal streams and waterways shall be regulated. Significant adverse impacts can be mitigated with the costs being included in the projects

operating budgets. The watershed management plans will have a review procedure solely to require mitigation procedures to enable the project to conform to the CZMP (5:54-56).

Natural habitat areas. Policies 26 through 29 protect the natural habitat areas in order to preserve ecologically significant areas, especially fragile habitat areas -- tide pools, seacaves, rocks, and dune plant habitat areas, to control development adjacent to significant or fragile habitat areas, and to encourage developments complementary to the habitats -- hunting, fishing, and grazing preserves. Natural vegetation buffer strips will be incorporated in all developments adjacent to lakes, lagoons, wetlands, and constant and intermittent flow streams. Also, permitted development will be monitored to minimize damage to natural habitats (5:57-58).

Agriculture. Policies 30 through 39 restrict the use of and require the protection of coastal zone agricultural lands. The basic agricultural policy recognizes agriculture as vital to the state and nation for food supply and the economy. Protection of many crops peculiar to the California coast due to special soil and climate conditions are specifically protected. Other agricultural areas will be preserved unless the owner can show the land to no longer be suitable for farming. Changes of the property tax base (farms are taxed on lucrative potential development values rather than agricultural values), inheritance taxes to reduce or exempt farm families, and income taxes are

recommended financial relief measures to preserve farm lands. If necessary, state financial assistance will be used to purchase or lease lands for easements in developing a buffer zone between urban and farm areas in an effort to contain the urban sprawl. Regulating agencies will have first opportunity if lands become available for sale. New developments are to be limited to agriculturally related projects. Parcels of land will be maintained in sizes sufficient to allow for profitable farming (5:59-64).

Forestry. (Policies 38 and 39) Forestry is to be managed under the watershed management plan with emphasis on protection and harvesting of timber lands to prevent erosion and adverse effects on water quality (5:64-65). Soil and mineral resources (Policies 40 through 43) will be protected and used in a way to prevent depletion, degradation, and erosion (5:66).

Air quality. Air quality (Policy 43) will be maintained and restored to achieve state and Federal clean air standards. Any development proposed for an area with substandard air quality can be banned if it is determined that it adds to that pollution, for example, traffic generating developments, fossil fuel power generating plants, and refineries (5:67-68).

Coastal appearance and design. Policies 44 through 55 establish visual resource protection and development. The coastal viewshed -- coastal lands and waters that can be seen from any land or sea transportation method, vista points,

recreational areas, and the water's edge -- will be protected and developed to provide the public with views of the scenic natural, historic, and open areas of the coastal zone. All developments are subject to a design review board to ensure compatibility with the CZMP design guidelines (Policies 49-56). The basic policy of the design guidelines requires that visual intrusion into scenic open spaces be minimized to protect, preserve, enhance and restore the scenic value of natural landforms. These guidelines require each separate landform type be visually available to the public and define limitations on development with respect to that landform (5:70-74).

Development. The subject of Policies 57 through 70 is the orderly and balanced development in the coastal zone. Specifically, development near national and scenic resource areas and certain scenic towns and neighborhoods is restricted with first priority to complementary activities. Developments in all coastal areas are to be concentrated in existing developed areas to minimize the urban sprawl which is quickly covering many good agricultural and scenic coastal areas. Separate concentrations of commercial, industrial, and residential areas are recommended. Development in other than existing developed areas is restricted, and where permitted, emphasis will be placed on complementary developments. Developments will be planned to decrease dependence on the private auto by making maximum use of interior circulation, by placing commercial developments



within or adjoining residential developments, and by locating near or obtaining local transit service. Public utilities, especially sewer, water, and roads, will be expanded to facilitate developments only when consistent with other CZMP policies. Priority for industrial developments will be given to developments dependent on the coastal area, for example, ports, yacht basins, and certain mineral extraction activities. Development in flood-hazard sections is restricted where watershed processes are adversely affected and where new developments cannot sustain periodic flooding. All developments will be planned consistent with existing codes, laws, and programs for construction in geological hazard areas -- areas prone to earthquakes, seismic generated waves, landslides, mudflows, and bluff erosion. All developments in these areas will have geologic evaluations and will have adequate engineering to withstand the geological disturbance expected. Certain public services and high occupancy structures -- hospitals and schools -- may be restricted altogether. Therefore, some developments may be limited by inability to provide these as well as other services (5:77-84).

Energy. This section describes the ways in which the coastal zone will benefit the whole state with regard to helping supply energy. These include:

- To provide sites and ocean cooling water for power plants that generate electricity;
- To provide sites for drilling, production, treatment, storage, and pipeline facilities for oil and gas operations onshore and on submerged lands beneath state and Federal offshore waters;

- To provide terminals to moor and offload tankers and barges bringing crude oil and refined products to California, the region, and the nation;
- To provide sites for oil refineries; and
- To provide special terminals and onshore plant facilities for liquified natural gas imports [5:86].

The recommended energy conservation Policies (71-73) deal with the restructuring of utility rates and the establishment of statewide energy conservation measures in new developments. The measures include: (1) establishment of energy budgets, (2) establishment of conservation specification standards, (3) energy conservation in street lighting systems, and (4) additional energy conservation measures (5:94-96).

Alternative energy sources (Policies 74 and 75) include such sources of energy as wind, solid wastes, methanol, hydropower, coal, nuclear fission and fusion, geothermal, and solar power. The policies encourage the development of these alternatives and the implementation of solar heating and cooling systems, once this source is developed more fully, in all future buildings (5:102-103).

Petroleum. The Energy Facility Siting and Design section, Policy 76, recommends the establishment of a statewide agency to plan and certify all energy facilities. This would include power plants, petroleum development, refineries, tanker terminals, and liquified natural gas (LNG) (5:104-106). Policies 77 through 80 deal with power plants and the coastal agencies role in siting coastal power plants, ongoing site identification process, criteria for

siting and design of coastal power plants, and the removal of outmoded power plants from the beach areas (5:107-108).

Policies 81 through 86, Petroleum Development, (1) state the basic policy for offshore petroleum development, (2) recommend separate permit review of exploration phase and development/production phase, (3) set criteria for siting and design of petroleum facilities, (4) list recommendations for increasing oil recovery efficiency, (5) recommend disclosing exploration and production data, and (6) list recommendations for avoiding adverse impacts of Federal Outer Continental Shelf petroleum development (5:112-116).

Policies 87 and 88 state the role that the coastal zone agency will play in refinery siting including the establishing of criteria for siting and design of refineries (5:118).

Tanker terminals are of concern to California at this time because of the oil production in Alaska. The policies in the CZMP state (1) the basic policy for tanker terminal planning, (2) the role of the coastal agency, (3) the maximization of existing tanker facilities, (4) the criteria for new or enlarged tanker terminals, and (5) the recommendations for improving and enforcing tanker technology and operating procedures (5:122-123).

Liquified natural gas, due to its dangerous nature, presents unique problems. The CZMP policies state (1) the role of the coastal agency in siting, (2) the criteria for

siting and design of the facilities, (3) the requirement for safety measures during marine operations, (4) the required safety measures at onshore facilities, and (5) the establishment of liability for accident damage (5:125-126).

Transportation. The transportation section addresses the problems of land, air, and water transportation systems. The land transportation problem is broken down into traffic and parking congestion. Congestion covers such areas as:

- Work day rush-hour congestion in metropolitan regions;
- Weekend, holiday, special events, and summer recreational traffic and congestion along urban and intercity coastal routes;
- Parking and local traffic congestion in coastal communities;
- Decreasing roadway capacity and safety resulting from conflicts between different types of traffic; and
- Increased air and visual pollution caused by slow-moving traffic [5:127].

Policies 99 and 100 deal with considering the coastal concerns in transportation plans and the necessity to review transportation plans affecting coastal resources or access (5:127-128).

Coastal road and traffic policies state that land use decisions should be related to transportation capacity, list criteria for new or expanded coastal roads, develop alternatives to prevent excessive use of coastal routes, and emphasize maximization of recreational and scenic value of Highway 1 and other coastal roads (5:129-130). The parking policies minimize the impact of parking facilities and require adequate parking in new developments (5:131).

Public transit is considered the answer to the traffic and parking congestion problems. The policies require new funding for coastal zone transit, the establishment of transit as a higher priority than new roads for cars, the expansion of transit in urban and in air quality maintenance areas, the expansion of rail service, and the advertizing of the transit system (5:132-133).

The expansion of airports in the coastal zone is to be very limited, if allowed at all. In the San Diego region, studies are being conducted on the feasibility of consolidating and eliminating "non-coastal-dependent military air operations [5:133]." Policies deal with future airport siting, limiting expansion of coastal airports, providing public access in some airport buffer land, and the reduction of the impact of airport-related transportation and parking on coastal access (5:133).

Water transportation is a major economic factor in California's economy. Policies 116 through 120 ensure that it will maintain that prominence. The policies (1) call for no additional major port areas, (2) require maximization of existing ports, (3) list the criteria for port development involving filling or dredging, (4) contain recommendations for navigational safety, and (5) require a feasibility study of expanded coastal ferry service (5:134-136).

Public access to the coast. The California Constitution guarantees the public access to the California coastline. Of the 1,072 miles of coastline, only 508 miles

are owned by the public. Some 75 miles of the publicly owned land is under military control and not readily open to the public. The basic policy is to provide access to the coast for all people (5:137-138). To this end, Policies 122 through 125 guarantee legal rights of public access to the coastline, provide for public accessways to the coastline, and provide for agencies to manage public access areas (5:138-139). Equality of access is provided in Policies 125 and 126 (5:140). Policies 127 through 130 provide access to the coastline through multiple use of the coastal lands, i.e., colleges, libraries, museums. Maximum use of Federal lands is being encouraged (5:141).

Recreation. The recreation portion of the CZMP covers Policies 131 through 148. The basic policy calls for optimization of the recreational use of the coast. New developments must consider this aspect. It is, however, realized that recreational use will have to be controlled in order to protect resources and to be consistent with other CZMP policies. Accessibility to the coastal zone will be accomplished through a coastal trails system and expansion of marinas, but not at the expense of coastal wetlands (5:142-148).

Education and scientific use. The educational and scientific use section deals with the resource areas of historical and natural significance that need protection. A coastal reserve system would coordinate the management of all coastal reserves. Education courses on a natural

resource study dealing with the richness of the California coast will be encouraged in the public school system. Legislation to strengthen laws protecting prehistorical resources is proposed (5:149-151).

The remaining policies, 152 through 162, discuss policies to restore the coastal resources, to acquire and establish priorities for public coastal land, and to prepare regional and local plans to carry out the CZMP (5:152-157).

Implementation. Part III of the CZMP discusses implementation of the CZMP. This implementation was given to local governments because:

- Using the existing local government land use planning and development review system can help eliminate duplication at the State level;
- Local government is both accessible and accountable to local citizens;
- Consolidation of the development review process at the local level reduces the time and money costs to the applicant; and
- Local governments are best able to reflect the different conditions and values of the many communities along the 1,100 mile coastline [5:159].

Not mentioned in the above list is that each local government already must have a General Plan for land use within its jurisdiction, including zoning ordinances conforming to that plan (5:160).

Local governments will be required to bring their General Plans, zoning ordinances, and other long-range development plans into conformity with the CZMP under coordination with the State Coastal Agency and other applicable agencies. The local implementation plan shall include, but not limited to, the following contents as

applicable:

- a. Community Development -- covered by Policies 57 to 70;
- b. Shoreline Recreation -- Policies 121 to 148;
- c. Recreational Support -- a program to protect upland areas for recreational support facilities and coastal-oriented commercial-recreational development;
- d. Streams, Estuaries, and Wetlands -- Policies 2 to 42;
- e. Agriculture Resources -- Policies 21 to 42;
- f. Forest Resources -- Policies 21 to 42;
- g. Scenic Resources -- Policies 44 to 56;
- h. Manmade Resources -- Policies 149 to 151;
- i. Wildlife and Plant Communities -- Policies 21 to 42;
- j. Hazards -- Policies 57 to 70;
- k. Low- and Moderate-Income Housing -- Policies 121 to 130;
  - l. Water and/or Wastewater Service System -- Policies 21 to 42;
- m. Energy Facilities and Conservation -- Policies 71 to 98;
- n. Transportation System -- Policies 99 to 120;
- o. Minerals and Soils -- Policies 21 to 42;
- p. National Interests Facilities -- a program for consideration of the siting of facilities of national interest, including but not limited to defense installations,



energy facilities, and resource production areas and areas surrounding these facilities (5:16-19, 160-161).

These local programs will be submitted to the Regional Coastal Commission. Then they must go to the State Coastal Commission for review and certification within three years of effective date of legislation of the CZMP. The Regional and State Coastal Commissions will have 90 and 60 days, respectively, to act on the local plan. If the local program is found not to be consistent with the CZMP, the specific reasons must be forwarded to the local government. Once the local program is certified, the state coastal agency will cease its review of development occurring in the portion of the resource management area covered by that program. Permits for development will be issued thereafter by the responsible local government under its implementation program. If the implementation plan of any local government is not certifiable or is not submitted within three years, the State coastal agency will exercise permit authority over that area and prohibit that local government from issuing any building or similar permits where the state finds additional development may conflict with the CZMP. Any changes to local programs must be reviewed and approved by the State agency before putting those changes into effect (5:162A-162B).

## DISCUSSION OF THE CZMA AND CZMP ANALYSES

Although Section 304(a) of the CZMA excludes

...from the coastal zone...lands the use of which is by law subject solely to the discretion of or which is held in trust by the Federal Government... [17:1490],

the CZMA also states in Section 307(c)(1) and (2) that:

(1) Each Federal agency conducting or supporting activities directly affecting the coastal zone shall conduct or support those activities in a manner which is, to the maximum extent practicable, consistent with approved state management programs.

(2) Any Federal agency which shall undertake any development project in the coastal zone of a state shall ensure that the project is, to the maximum extent practicable, consistent with approved state management programs [17:1494-1495].

The CZMA states that Federal agencies will comply with the application and permit system established by the state CZMP. Additionally, the Federal agencies will not issue any contracts or permits until the application is approved by the state agency (17:1495-1496).

Although the Secretary can deem an activity in the interest of National defense and override any state's objections, the states do not anticipate this to occur in any situation short of a National emergency. Therefore, the day-to-day activities of USAF installations will be subject to monitoring by the state if any of these activities take place in the coastal zone as defined by that state. Also, all states at the requirement of the CZMA will have or will plan for coordination efforts between all levels of government from Federal to local.

The coastal zone management process can be seen as an extension of the current water and air pollution, solid waste, and area-wide sewage treatment programs around the country as well as the necessity to file an Environmental Impact Statement prior to any significant development. Although it is not likely that the mission of an installation would be curtailed by the CZMP, it could require extensive alteration. Also, many of the USAF support functions might require an extensive alteration of their policies and procedures. In addition to the USAF mission and support functions, the off-duty activities of USAF personnel and their families with respect to residential, commercial, and recreational needs could be affected.

The following discussion of the California CZMP will serve to exhibit ways in which the possibility of the above actions could occur. The topics chosen for discussion do not constitute an exhaustive list of areas which will be affected, but only serve as examples.

Policy 7 requires water quality to be maintained, managed, and restored (1) by upgrading existing municipal and industrial discharges to meet the standards of the Federal Water Pollution Control Act of 1972 (FWPCA), as amended, (2) by phasing out discharges to enclosed bays and estuaries, (3) by requiring adequate treatment for new or enlarged discharges to other coastal waters, (4) by controlling discharges from non-sewered developments, (5) by restricting expansion of substandard sewage systems, and

(6) by requiring control at the source for toxic and hard-to-treat substances (5:40-41). Many of these actions are mere reiterations of earlier environmental legislation. For example, much of the above will be handled under Section 208 of the FWPCA covering area-wide treatment of sewage. But this is an area which could shut down many support functions (painting, chroming, and other metal treatments, for example) if adequate measures are not undertaken. Also, this policy could prohibit expansion of any facilities that do not meet the most severe of state or Federal regulations. An example of an affected activity in both California and Florida is the treatment of the volumes of water used for cooling missile and rocket launches.

Policy 14, which also addresses water quality, controls runoff that degrades coastal waters and requires treatment of polluted and contaminated runoff at their sources (5:46). The coastal installation whose operations and maintenance areas have spillage of fuel, oil, or other foreign substances could be required to treat all runoff that might have been contaminated, whether it enters via storm drainage or normal sewage systems.

Policies 26, 27, and 28 require preservation of significant natural areas and rare species, protection of fragile habitat areas, and control of developments adjacent to significant fragile habitat areas by giving priority to complementary uses and restricting disturbance of shoreline habitats and maintenance of natural vegetation (5:57-58).

These policies could have a strong impact on operations in the coastal zone depending on the definition of protection of fragile habitat areas. Many USAF installations are surrounded by open areas which could be construed to be a significant fragile habitat area. Any development or enlargement of current activities in the shoreline area would invariably infringe on the fragile ecosystem and would, therefore, be subject to review by the state agency. Also, the developments that accompany an installation to provide shopping, recreation, and housing could be severely hampered in certain coastal areas.

Policy 32 requires maintenance of agricultural lands in sufficient sizes to allow agriculture to be a properous means of making a living. Prime agricultural lands are diminishing to the more tax yielding residential and commercial developments with sizes of farms continuing to decrease in size. This policy, noting that some of California's agricultural products are unique to the California coastal zone, calls for a greenbelt to curtail the sprawl or urban development into lands suitable for agricultural purposes (5:61-62). The majority of military installations have been developed in open country away from urban areas but have systematically been surrounded by that same urban sprawl. However, many have remained remote and lay surrounded by prime agricultural interests which are appropriate uses of land near runway operations under the Air Installation Capatibility Use Zone program. This policy

would limit and in some areas prohibit further expansion of an installation into adjacent agricultural lands as well as increase the difficulty in siting of any new facilities attempting to avoid urban areas.

Policy 43 requires coastal developments to be designed and operated to protect air quality. This policy includes airports, freeways, and any existing or new development which might cause an increase of the pollution in an area not meeting existing standards. The findings preceding this policy explain that increasing the size of any development or activity in an existing polluted area should be prohibited if it means additional vehicular traffic and an accompanying increase in air pollution (5:65-68). This policy could limit expansion of a facility and prohibit development of new installations in areas where air pollution already does not meet standards. This policy could also cause a change in air operations if these operations would lead to increased air pollution.

Policy 59 requires that new developments be established in already developed areas to concentrate urban areas and limit expansion into rural, open, and agricultural areas. It also permits new development only if the project is served by adequate public transportation. This restriction is an effort to reduce pollution, congestion, and energy usage (5:77-78). The policy of concentrated urban areas surrounded by restrictive green belts used to limit growth into open areas is further reinforced. This

policy, as others previously stated, will limit growth outward and require inward growth of USAF facilities as well as the residential and commercial developments which surround the facilities.

Policies 74 and 75 in the Energy section require an alternative energy source evaluation be submitted with every proposal for a major energy installation. It also requires that the legislature in coordination with the Energy Commission set standards for testing and certification of solar energy systems, undertake a program that will lead to retrofitting solar systems to existing buildings for heating and cooling, and require local governments to adopt "sun rights" ordinances to ensure that property owners have benefits of free and clear access to sun radiation at all times of the year (5:102-103). Policies 76 through 80 cover similar investigative procedures for other alternate energy sources: wind energy, solid wastes, methanol, hydropower, coal, nuclear fission and fusion, and geothermal sources (5:103-108).

The emphasis is toward better fossil fuel power plants and the greater use of an alternate energy source, with solar, geothermal, and nuclear being the most appropriate energy sources to be developed in California at this time. This, along with current USAF policy, will provide added emphasis to reduce the dependence on fossil fuels as energy sources. The USAF, with its large holdings in land and structures, has the opportunity to cut future

operations and maintenance costs through the use of some alternate energy source to fossil fuels.

The subject of Policies 101 and 102 is land transportation. These policies require that roadways be designed to maximize scenic and recreational transportation and that developments locate where existing roadways are below maximum capacity in traffic volume. These policies recommend that in undeveloped areas roadways be built only for recreational access and scenic viewing and not to support increased development (5:129-130). These policies could make expansion of existing coastal zone installations or development of a new installation in the coastal zone difficult, if not impossible. If such expansion was allowed, it might be on the basis of expensive public transportation being developed or utilized at either the expense of the USAF or its personnel.

In summary, this discussion has illustrated some of the effects of a few of the 162 policies of the California Coastal Plan. These effects generally would limit growth of new and existing installations not because of the activity itself, but because of the ensuing development in commercial and residential facilities, energy sources, sewage systems, transportation systems, etc. The USAF planner will be forced to take into account the entire present and future effects of an installation's mission, its supporting functions, and their demands on their surroundings more than is already required by other environmental legislation.



## CHAPTER V

### CONCLUSIONS AND RECOMMENDATIONS

The Coastal Zone Management Act of 1972 and the state CZMPs which have promulgated from it will have both negative and positive impacts on the planning and programming of USAF installation level activities. In this chapter, the negative and positive impacts will be discussed followed by a set of guidelines which were developed to guide the installation Civil Engineer (CE) in analyzing draft CZMPs.

All environmental laws have been passed with the good of the people as a whole as the basic reason for enactment. As the Washington CZMP stated: this generation is the custodian of the earth and its environment for future generations (15:1). It is the ultimate goal of the CZMA and other environmental laws to return the nation's air, land, and water to its natural state -- clean and unpolluted, so that future generations will have a chance to life as it is known today rather than as a mutant form due to the effects of increased chemicals and other foreign matter in our air and water.

To maintain and restore the environment to the desired level will cost hundreds of millions of dollars. The USAF, being a Federal agency, is charged with being a leader in this cleanup by both legislation and Executive Order (16:56). Also, the CZMA includes the Federal

consistency statement requiring all Federal agencies to be consistent with the states' CZMPs to the maximum extent practicable (17:1494-1495). The costs to restore and maintain the environment will constitute the most negative impact on the USAF by the Federal CZMA and the states' CZMPs. This is because limited USAF budgets will now have to include money to bring its installations into compliance with the CZMP's policies as well as other environmental legislation. Also, any future developments will have to come under the inspection of the state or local regulating agency which could veto the project altogether, delay the project causing increases in the costs, and/or require changes which could increase the project's costs. Therefore, the installation CE will have to take these aspects into account when developing both long-range and short-range plans.

A factor which could prove negative if mishandled is the coordination required by the CZMA of state/local agencies and the Federal agencies. This factor probably has the greatest potential for benefit to the USAF; or it could be the most detrimental if the relationship of both parties before, during, and/or after the coordination efforts is negative. The USAF, being subject to political manipulation, must constantly strive at positive public relations in the day of tight budgets to eliminate the chance of loss or waste of resources due to a conflict of this type. However, if this coordination effort is maximized the rewards to the USAF in increased public confidence, goodwill, and

cooperation could be a springboard for cooperation and coordination on a multitude of social and economic ventures. Such ventures could be the consolidation of municipal services -- garbage, water, sewage, and energy sources -- which could save the USAF as well as the surrounding communities valuable tax dollars. This in turn could aid the USAF in fulfilling its responsibilities for protection of the environment while loosening strained budgets to better accomplish the mission.

Other negative aspects of the CZMA and the states' CZMPs could be the alteration of the mission at a USAF facility. Although Federal laws and the CZMA exempt Federal lands from such action, the USAF has seen that its proposed plans can be changed by private action in courts. In addition, there could be such an expense through compliance with a CZMP that further activity at that location would not be warranted. At the other extreme, compliance with CZMP policies could result in money savings which would allow more expenditures on the mission and less on municipal services. One such area is through the use of alternate sources of energy to fossil fuels. By using solar, geothermal, or wind generators, for example, savings in energy costs over the life cycle of the activity might be realized. With the prediction of the reduction in fossil fuel availability, the use of alternate energy sources could extend the expected life of the petroleum fuels necessary for today's and tomorrow's aircraft. This, in turn, could delay

the need for changing aircraft from petroleum based fuels to fuels based on other energy sources.

In conclusion, there is no foreseeable way in which the USAF can gain monetary benefits in the short-range from the CZMA and CZMPs or any other environmental legislation. However, there might be long term benefits that will eventually overshadow the costs to recover a clean and natural environment. Also, many of the negative factors of this legislation can be turned into positive factors by a creative, coordinated, and comprehensive planning effort by the installation CE.

Another aspect of the CZMPs which requires discussion is the level of government that the installation CE will deal with both during CZMP development and later during administration and enforcement of its policies.

There are conditions under which either the centralized agency or a lower level agency might result in easier coordination between the development agency and the installation. An important aspect of the lower level coordination is that the local agency is only responsible for the region near the installation. Therefore, the local agency in developing the CZMP policies will have a better idea of the mission and specific problems faced by that installation. In comparison, a state agency would be developing policies applicable to all of the coastal zone and not a specific municipality or county. Therefore, it might not realize the problems unique to that local area. An

installation straddling the jurisdictions of two or more local agencies would probably require extra effort compared with an installation which could work solely with state agencies. However, even the installation under several local agencies' jurisdictions should be better able to accomplish coordination with these local agencies than with a state level agency since most of the preparation would be a duplication and each of the local agencies would be familiar with the unique situation of the installation.

Similar considerations favor local administration and enforcement of the CZMP policies. In addition, many of the installations will be actively involved with local agencies in power plant development, water pollution controls, solid waste disposal, area-wide sewage treatment, and air pollution control programs. The CZMP will most likely be administered on the local level by the same agencies. Therefore, the foundation for the interface between those agencies and the installation has already been developed. This would be true with a state level organization; but in most states, there would be fewer programs requiring coordination with the state organization. In addition, state level agencies would have a broader scope for all its programs than the local agencies.

A possible problem area with coordination with local agencies is that the scope of the local agency may be, in fact, too narrow. Any attempt on their part to control USAF activities might jeopardize the USAF mission due to the

narrow scope in which the local agency is involved. It is, therefore, strongly recommended that the USAF installation CE become involved in the earliest planning stages of the CZMP to provide the necessary guidance to the local agency.

In conclusion, operating in coordination with a local level agency would probably result in a closer interface between agencies due to the more limited scope required of the local agency and more active programs coordinated between the agencies.

#### Guidelines

The guidelines are a set of recommendations to be used for determining (1) the information needed to evaluate the effect of the CZMPs on the USAF installation and its mission, and (2) the level of state government which must be dealt with to insure CZMP plans have the proper input from affected USAF installations. The guidelines are directed to the USAF installation CE, who is the office of primary responsibility (OPR) for environmental affairs at base level, or his designated representative. The guidelines are listed as single general statements and then are expanded in a narrative explanation. Because of the generally limited detailed data, it was not possible to develop a lengthy set of specific recommendations.

1. Obtain a copy of the CZMA and investigate the findings which led to its enactment.
2. Establish contact with the local or state coastal zone coordinator responsible for the area in which

the installation is located.

3. Obtain a copy of the applicable state CZMP proposal and investigate the policies and findings supporting the program. If no complete CZMP is available, consult with the responsible agency concerning the status of the CZMP.

4. Determine if the installation lies within the boundaries of the coastal zone as outlined by the CZMP.

5. Analyze the installation mission and programs in order to be able to convey pertinent information to both the CZMP development agency and other installation functions.

6. Analyze the installation services and support functions in order to be able to convey pertinent information to both the CZMP development agency and other installation functions.

The initial step is to obtain a copy of the CZMA and investigate the events which led to the enactment of the legislation. This background will be the foundation upon which an awareness of the critical nature of a sound coastal zone management program needs to be built. A copy may be obtained through the Government Printing Office in Washington, D.C. An understanding needs to be developed on how the Federal program is administered. This will help the CE in understanding the state structure to a large degree. Specific attention should be paid to Sections 304(a), 306(c)(1), 307(a), 307(b), and 307(c), which deal with the requirement for Federal agencies to participate in develop-

ment of the CZMPs and, once developed, to assist the state by complying with the policies of the CZMP, especially the permit and application processes.

Step two requires establishing contact with the local and/or state coastal zone agency. The name of the coordinator and the agency title can be obtained by checking with the state agency concerned with environmental protection.

Copies of the state CZMP proposal and the local, county, and/or regional plan are necessary in step three. If the proposal has not been compiled at this time, then seek copies of all data being considered by the development agency. This will normally include, but will not be limited to, current state and Federal legislation, environmental agency policies and studies, and information from concerned citizen groups. The key to this step is the personal contact with the state and/or local coordinator.

Determination of whether or not the installation lies within the proposed coastal zone boundaries is the key point of step four. If the installation lies within the boundaries of the coastal zone as defined by the state, all of the policies are applicable and the installation is responsible for compliance. If the installation does not, in fact, lie within the proposal boundaries, the majority of the possible points of conflict are avoided. This does not infer that nothing further is required. Even though the installation itself does not lie within the defined zone,



such areas as energy, recreational, and waste disposal needs, to mention a few, might have an impact on the coastal zone. Most programs are concerned with the impact from within and from outside the designated zone. Therefore, even when outside the coastal zone boundaries, many of the policies will be applicable and the installation will be required to comply.

In step five, the key to productive coordination and communication is a thorough understanding of the current mission plus the most current future operational plans of the entire installation. The CE will face the strongest impact due to his management of the physical plant of the installation and its municipal services. However, he is responsible as the OPR for environmental protection to communicate any programs that he discovers which could affect the mission of some other organization on the installation. One way in which this information could be distributed is through the Base Environmental Protection Committee, which is usually chaired by the base or wing commander and manned by the senior base managers. By utilizing this committee and follow-up communication, any significant information could be distributed quickly and efficiently to the working organizations for action. It is the responsibility of the individual organization to get the necessary information from the CE or the state or local agency responsible, to fully analyze any possible impact on their mission, and to take the necessary actions to comply with the CZMP or obtain

a waiver to continue in a non-compliant status.

The last area of concern, step six, deals with the municipal services and support functions of the installation. This, too, will mostly affect the CE since he is the manager of many of these services as well as the physical plant. This step could also affect some of the other organizations on the installation that are supportive functions (not directly involved in the overall mission of the installation). Therefore, the CE must convey this information to these organizations as was required in step five.

Step six is also the area where the CZMP will probably have the most impact. In order not to alienate the installation and cause it to close, the state may exclude the mission from the CZMP. However, the state will definitely require compliance of surrounding areas. Since environmental problems do not recognize jurisdictional boundaries, the physical plant of the installation and the services to keep it operating will most likely require compliance as well as with the CZMP. These will include energy, air, water, waste disposal, recreational, and commercial needs. For example, how will increases in these needs because of a proposed expansion of the installation impact the coastal zone? Will more coastline be required or how does the installation open up more coastline to the general public without degrading either the mission or support functions?

These and many more perplexing questions remain to be confronted because of the awareness by the nation of the criticality of our coastal zone. The installation CE, as the OPR for environmental protection and, therefore, coastal zone management, must develop an appreciation of the importance of the coastal zone in order to help develop a coastal zone program that will help provide the management necessary to protect the natural resources while not degrading the essential National defense capability of the USAF.

## SELECTED BIBLIOGRAPHY

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### REFERENCES CITED

1. Bedker, Ervin J., Coastal Zone Programs Project Manager, Plans and Programs, Directorate of Civil Engineering, Headquarters, Department of the Air Force, Washington, D.C. Telephone Interview. 4 November 1975.
2. Gilbert, Brigadier General William D., Deputy Director of Civil Engineering, Directorate of Civil Engineering, Headquarters, Department of the Air Force, Washington, D.C. Letter, subject: Coastal Zone Management (CZM) Program, to Major Commands, USAF, 24 July 1975.
3. Johnson, Bruce, Staff Director, Coastal Coordinating Council, State of Florida, Tallahassee, Florida. Telephone Interview. 3 December 1975.
4. Mack, Rod. Department of Ecology, State of Washington, Olympia, Washington. Telephone Interview. 3 December 1975.
5. State of California. Coastal Plan, Parts I, II, and III. San Francisco: California Coastal Zone Conservation Commission, 1975.
6. State of Delaware. Delaware Coastal Zone Management Program Application. Dover, Delaware: Delaware State Planning Office, May, 1975.
7. State of Florida. "Coastal Zone Management In Florida - 1972," A Status Report to the Governor, the Cabinet, and the 1973 Legislation. Tallahassee, Florida: Coastal Coordination Council.
8. State of Florida Department of Natural Resources. NEWSLETTER. Vol. V, Number 8. Tallahassee, Florida: Coastal Coordination Council. June 1975.
9. State of Florida. "Florida Population Analysis," A Report by the Coastal Coordinating Council: Department of Natural Resources.